

# **An Area Sample of Farm Retail Selling in Franklin and Meigs Counties, Ohio**

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Introduction

This study was conducted in an effort to determine if the use of an area random sampling procedure in Franklin and Meigs Counties would satisfactorily estimate the sales of agricultural commodities produced by the farmers in these two counties.

The specific objective was to determine the value of the sampling procedure in estimating the dollar volume of all farm retail selling. Other objectives were to determine the value of the sampling procedure in estimating the total value of all agricultural commodities produced and sold, and to estimate the value and percentage of these commodities sold through various market outlets.

The information was obtained by personal interview. The sales data covered all agricultural commodities produced and sold by the farmers involved in the study, and the type of market outlet for these commodities.

Two counties having drastically different production and population were selected for evaluating the use of the area sampling procedure. Franklin County was selected because it is an urban county with a population of 727,239 which includes metropolitan Columbus (575,977 population), the third largest city in Ohio. According to the 1959 Census there were 1434 farms in Franklin County and due to the density of population and apparent number of roadside markets it appeared that farmers would have an opportunity for a considerable amount of farm retail selling.

Only twenty-one farms in Franklin County were classified as vegetable farms in the Census and none of the farms were classified as fruit and nut farms. In 1961 the estimated cash receipts of vegetables and fruit

(from farm marketing), were \$1,144,000.<sup>1/</sup> This represented 8.0 percent of the total value of all agricultural commodities produced and marketed in 1961 in Franklin County.

Meigs County was selected because it is primarily a rural county with a population of 21,876 and the largest town, Pomeroy, has a population of 3,350. According to the 1959 Census there were 1367 farms in the county, and since this was a rural county and no known roadside markets existed there appeared to be little opportunity for retail selling by these farmers.

Fifty farms in Meigs County were classified by the Census as vegetable farms and none were classified as fruit and nut farms. The estimated cash receipts for all vegetables and fruit, from farm marketings in 1961 were \$948,000.<sup>1/</sup> Fruits and vegetables represented 19.6 percent of the total value of all agricultural commodities produced in 1961 in Meigs County and marketed.

#### Procedure

The sampling procedure used in the study is based on the USDA-Iowa State Area Sampling Maps. These were for non-urban areas as defined by the original map.

These maps define 207 sample areas in Franklin County which constitute 393 sampling units, and 299 sample areas in Meigs County that constitute 482 sampling units. Each sample area includes one to three sampling units depending on the size of the area and number of farms.

In this study the first sample area was selected at random within the first twenty sampling units. Each area selected thereafter fell within the sampling interval of every twentieth sampling unit.

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<sup>1/</sup>"1961 Ohio Farm Income," Ohio Agricultural Experiment Station, Wooster, Ohio

Each residence in the selected sampling area was visited. Those at home responded to an interview schedule concerning the farm commodities produced and marketed in 1961. A total of 387 residences were visited in Franklin County and 345 in Meigs County. In Franklin County 11.1 percent of the residences visited were not interviewed and in Meigs County 8.5 percent of the residences visited were not interviewed since no one was at these residences at the time of the visit. No return visit was made to these residences. Taking into account the residences not interviewed an adjustment was made in computing the total sales for the sampling area.

The sample areas selected in Franklin County represented 11.5 percent of the total agricultural production units in the county. In Meigs County the sample areas selected represented 11.0 percent of the total production units. On the basis of the adjusted sales for the sampling areas, the total sales for the two counties were estimated.

#### Sales of Agricultural Commodities

Of the residences visited in Franklin County, 37.2 percent were involved in producing and either wholesale or retail selling of agricultural commodities compared with 27.9 percent in Meigs County (Table 1). This is contrary to what might have been expected since Meigs is primarily a rural county, while Franklin County is more urban.

#### Farm Product Sales in Franklin County

Breakdowns were made of the volume of sales of farmers interviewed in the sampling area and total projected sales for the various agricultural commodities produced in 1961 in Franklin County and marketed. In arriving

Table 1  
Number of Residences Interviewed in Franklin and Meigs Counties, Ohio,  
and Number and Percent of Residences Producing and  
Selling Agricultural Commodities, 1961

County	Total Number of Residences Visited in Sampling Area	Number and % of Residences	
		Producing and Selling Agri- cultural Com- modities	Percent
Franklin	387	144	37.2
Meigs	355	99	27.9
Total	742	243	32.7

Source: Data from Interview Schedules

at the total projected sales for the county the total production of the growers interviewed was expanded to represent the production of all farmers within the county. The distribution of the volume and percentage of total projected sales marketed through different outlets is also included. All farm retail selling is included in the category of sales to consumers.

#### Livestock and Livestock Products Sales Other Than Poultry

Farm retail selling of livestock represented 0.44 percent of total livestock sales (Table 2).<sup>1/</sup> Slaughter cattle sales to consumers accounted for the majority of the farm retail sales of livestock. The market outlet for 66.7 percent of the livestock was through auction sales, while 27.9 percent of the livestock was sold directly to packing houses and 4.9 percent to other farmers.

There was no farm retail selling of milk and wool (Table 3). All of the milk was sold to dairies and the wool was marketed through wool buyers and wool pools.

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<sup>1/</sup> By retail is meant all sales direct to the consumer

Table 2  
Value of Livestock Sold by Farmers, and Percent Sold  
Through Various Market Outlets, Franklin County, Ohio, 1961

Livestock	Sales In Sampling Area	Projected Total Sales	Projected Total Sales Through Various Market Outlets							
			Auction	Per- cent	Packing House	Per- cent	To Other Farmers	Per- cent	Consumer	Per- cent
-Cattle										
Slaughter	\$151,095	\$1,319,563	\$1,148,548	87.0	\$158,083	12.0	-	-	\$12,932	.98
Breeding	14,794	129,201	-	-	-	-	\$129,201	100.0	-	-
Cull Dairy	10,971	95,813	70,815	73.9	24,998	26.1	-	-	-	-
Feeders	7,246	63,282	57,802	91.3	3,044	4.8	2,436	3.9	-	-
Total Cattle	\$184,106	\$1,607,859	\$1,277,165	79.4	\$186,125	11.6	\$131,637	8.2	\$12,932	.80
-Hogs										
Slaughter	\$159,375	\$1,391,875	\$ 695,798	50.0	\$695,241	50.0	-	-	\$ 836	.06
Feeders	2,718	23,737	23,654	99.7	-	-	\$ 83	.35	-	-
Breeding	2,194	19,161	-	-	-	-	19,161	100.0	-	-
Total Hogs	\$164,287	\$1,434,773	\$ 719,452	50.1	\$695,241	48.5	\$ 19,244	1.3	\$ 836	.06
-Sheep										
Lambs	\$ 13,545	\$ 118,293	\$ 113,668	96.1	\$ 3,407	2.9	\$ 1,041	.88	\$ 177	.15
Sheep	712	6,218	2,595	41.7	-	-	3,623	58.3	-	-
Total Sheep	\$ 14,257	\$ 124,511	\$ 116,263	93.4	\$ 3,407	2.7	\$ 4,664	3.8	\$ 177	.02
Total Livestock	\$362,650	\$3,167,143	\$2,112,880	66.7	\$884,773	27.9	\$155,545	4.9	\$13,945	.44

Source: Data from Interview Schedules

Table 3  
Value of Livestock Products Sold by Farmers, and Percent Sold  
Through Various Market Outlets, Franklin County, Ohio, 1961

Livestock Products	Sales In Sampling Area	Projected Total Sales Through Various Market Outlets						
		Projected Total Sales	Dairy	Per- cent	Wool Buyer	Per- cent	Wool Pool	Per- cent
Milk	\$153,385	\$1,339,562	\$1,339,562	100.0	-	-	-	-
Wool	5,324	46,496	-	-	\$15,874	34.1	\$30,622	65.9
Total	\$158,709	\$1,386,058	\$1,339,562	96.6	\$15,874	1.2	\$30,622	2.2

Source: Data from Interview Schedules

#### Poultry and Poultry Products Sales

Farm retail selling of poultry and poultry products in Franklin County was of much greater importance than farm retail selling of livestock or livestock products. All of the broiler sales in the sampling area were to consumers, while 45.3 percent of the egg sales were also directly to consumers (Table 4). Note that 37.7 percent of the total sampling area sales of poultry and poultry products were farm retail sales to consumers. Eggs constituted 78.6 percent of the total sales of poultry and poultry products.

#### Field Crop Sales

There was no farm retail selling of field crops since there were no sales directly to consumers. Sales to elevators accounted for 96.1 percent of the total field crop sales with soybeans and corn being the two main commodities.

Table 4  
Value of Poultry and Poultry Products Sold by Farmers, and Percent  
Sold Through Various Market Outlets, Franklin County, Ohio, 1961

Poultry and Poultry Products	Sales In Sampling Area	Projected Total Sales Through Various Market Outlets						
		Projected Total Sales	Packing House	Per- cent	Retailer	Per- cent	Consumer	Per- cent
Turkeys	\$ 3,431	\$ 29,964	\$29,215	97.5	-	-	\$ 749	2.5
Hens	2,073	18,104	15,953	88.1	-	-	2,151	11.9
Broilers	225	1,965	-	-	-	-	1,965	100.0
Eggs	21,012	183,505	-	-	\$100,396	54.8	83,109	45.3
Total	\$26,741	\$233,538	\$45,168	19.3	\$100,396	43.0	\$87,974	37.7

Source from Interview Schedule

#### Vegetable Crops, Fruit, Flowers and Shrubs, and Sod Sales

For the sample farms, 100 percent of the vegetable and fruit sales were farm retail to consumers (Table 6). This indicates that farm retail selling of vegetables and fruit is important in Franklin County. The fact that some of the vegetable and fruit production in Franklin County is sold to wholesalers and retailers in Columbus, was not shown by the survey results of the sample farms.

The census shows that apples, peaches and grapes were produced in Franklin County, but the survey did not indicate production of these commodities. Also, a considerable amount of known asparagus and turnip production was not shown by the survey results, and tomato and sweet corn production is much larger in Franklin County than was indicated by the survey.

The volume of flowers and shrub sales and sod sales should also be noted in Table 6. All of these sales were to retailers, wholesalers, and to individuals for use.



Table 5  
Value of Field Crops Sold by Farmers, and Percent Sold  
Through Various Market Outlets, Franklin County, Ohio, 1961

Crops	Sales In Sampling Area	Projected Total Sales	Projected Total Sales Through Various Market Outlets					
			Elevator	Per- cent	To Other Farmers	Per- cent	Other <u>1</u> / Markets	Per- cent
Soybeans	\$165,189	\$1,442,651	\$1,442,651	100.0	-	-	-	-
Field Corn	144,729	1,263,967	1,246,903	98.7	\$ 17,064	1.4	-	-
Wheat	92,161	804,873	749,739	93.2	55,134	6.9	-	-
Hay	7,268	63,474	-	-	62,725	99.8	\$ 749	1.2
Oats	3,352	29,274	29,274	100.0	-	-	-	-
Alfalfa	2,025	17,685	17,685	100.0	-	-	-	-
Straw	619	5,406	-	-	3,144	58.2	2,262	41.9
Barley	562	4,908	4,908	100.0	-	-	-	-
Rye	385	3,362	1,569	46.7	1,793	53.3	-	-
Total Field Crops	\$416,290	\$3,635,600	\$3,492,729	96.1	\$139,860	3.9	\$3,011	.08

1/ Other markets include hay and straw being sold for use with ponies and straw sold for gardening and miscellaneous uses.

Source: Data from Interview Schedules

Table 6  
Value of Farm Production of Vegetables, Vegetable Plants, Fruit, Flowers, Shrubs, and Sod  
Sold by Farmers and Percent Sold Through Various Market Outlets, Franklin County, Ohio, 1961

Commodity	Sales In Sampling Area	Projected Total Sales	Projected Total Sales Through Various Market Outlets					
			Retailer	Per- cent	Consumer	Per- cent	Other <sup>1/</sup> / Markets	Per- cent
Vegetables								
Beets	\$ 6.50	\$ 57	-	-	\$ 57	100.0	-	-
Onions	6.50	57	-	-	57	100.0	-	-
Cucumbers	9.00	79	-	-	79	100.0	-	-
Muskmelons	10.00	88	-	-	88	100.0	-	-
Green Beans	21.50	188	-	-	188	100.0	-	-
Lima Beans	22.50	197	-	-	197	100.0	-	-
Tomatoes	144.00	1,258	-	-	1,258	100.0	-	-
Sweet Corn	241.00	2,105	-	-	2,105	100.0	-	-
Vegetable Plants	315.00	2,751	-	-	2,751	100.0	-	-
Total Vegetables	\$ 776.00	\$ 6,780	-	-	\$6,780	100.0	-	-
Fruit								
Strawberries	\$ 85.50	\$ 747	-	-	\$ 747	100.0	-	-
Total Fruit	\$ 85.50	\$ 747	-	-	\$ 747	100.0	-	-
Flowers and Shrubs	\$2,250.00	\$19,650	-	-	-	-	\$19,650	100.0
Sod	2,109.00	18,419	\$18,419	100.0	-	-	-	-
Total Flowers, Shrubs and Sod	\$4,359.00	\$38,069	\$18,419	48.4	-	-	\$19,650	51.6
Total of All Commodities	\$5,220.50	\$45,596	\$18,419	40.4	\$7,527	16.5	\$19,650	43.1

<sup>1/</sup> Flowers and Shrub sales were to retailers, wholesalers and individuals. It was not possible to breakdown the volume of sales for each particular type of market.

Source: Data from Interview Schedules

Sales of Miscellaneous Agricultural Commodities and Services

Other miscellaneous agricultural commodities and services were marketed by farmers selling them directly to users and by farm retail selling directly to consumers. Only 3.4 percent of these sales were directly to consumers (Table 7). The other 96.6 percent were sales to users.

Table 7  
Value of Miscellaneous Agricultural Commodities and Services Sold by Farmers and Percent Sold Through Various Market Outlets, Franklin County, Ohio, 1961

Commodity	Sales in Sampling Area	Projected Total Sales	Projected Total Sales Through Various Market Outlets			
			Consumer	Per-cent	Other <sup>1/</sup> Markets	Per-cent
Horse Stud Fees	\$1,012	\$ 8,838	-	-	\$ 8,838	100.0
Ponies	788	6,882	-	-	6,882	100.0
Rabbits	53	463	\$463	100.0	-	-
Honey	11	96	96	100.0	-	-
Total Miscellaneous	\$1,864	\$16,279	\$559	3.4	\$15,720	96.6

<sup>1/</sup> Other Markets in this instance refers to the horse stud services sold to non-farmers and sales of ponies.

Source: Data from Interview Schedules

Farm Production Sales In Meigs County

The following section summarizes sample survey sales and total projected sales for various agricultural commodities produced in Meigs County and marketed in 1961. Farm retail selling is shown in the sales to consumers category.

Livestock and Livestock Products Sales Other than Poultry

Farm retail selling of livestock directly to consumers only represented 0.61 percent of the total livestock sales in Meigs County (Table 8). The

Table 8  
Value of Livestock Sold by Farmers, and Percent Sold Through  
Various Market Outlets, Meigs County, Ohio, 1961

Livestock	Sales In Sampling Area	Projected Total Sales Through Various Market Outlets										Per- cent
		Projected Total Sales	Auction	Per- cent	Packing House	Per- cent	Other Farmers	Per- cent	Trucker	Per- cent	Consumer	
Cattle												
Slaughter	\$47,781	\$434,537	\$374,180	86.1	\$27,506	6.3	-	-	\$29,311	6.75	\$3,520	.81
Feeders	8,432	776,683	30,911	40.3	-	-	\$45,772	59.7	-	-	-	-
Breeding	762	6,930	-	-	-	-	6,930	100.0	-	-	-	-
Total Cattle	\$56,975	\$518,150	\$405,091	78.2	\$27,506	5.3	\$52,702	10.2	\$29,311	5.66	\$3,520	.68
Hogs												
Slaughter	\$ 2,071	\$ 18,834	\$ 5,255	27.9	\$13,579	72.1	-	-	-	-	-	-
Feeders	3,475	31,603	16,813	53.2	-	-	\$14,790	46.8	-	-	-	-
Total Hogs	\$ 5,546	\$ 50,437	\$ 22,068	43.8	\$13,579	26.9	\$14,790	29.3	-	-	-	-
Sheep												
Lambs	\$ 398	\$ 3,620	\$ 1,704	47.1	-	-	\$ 1,916	52.9	-	-	-	-
Sheep	387	3,520	-	-	-	-	3,520	100.0	-	-	-	-
Total Sheep	\$ 785	\$ 7,140	\$ 1,704	23.9	-	-	\$ 5,436	76.1	-	-	-	-
Total Livestock	\$63,306	\$575,727	\$428,863	74.5	\$41,085	7.1	\$72,928	12.7	\$29,311	5.1	\$3,520	.61

Source: Data from Interview Schedules

major outlet for livestock sales was through auctions which accounted for 74.5 percent of the total sales. Sales to other farmers was the second most important outlet and was a more important outlet than packing houses.

Livestock products are an important source of farm income in Meigs County. There was no farm retail selling of livestock products direct to consumers (Table 9). Milk and cream constituted 99.7 percent of the sales and these commodities were marketed through dairies.

Table 9  
Value of Livestock Products Sold by Farmers and Percent Sold  
Through Various Market Outlets, Meigs County, Ohio, 1961

Livestock Products	Sales In Sampling Area	Projected Sales Through Various Market Outlets				
		Projected Total Sales	Dairy	Per- cent	Wool Buyer	Per- cent
Milk	\$227,955	\$2,073,100	\$2,073,100	100.0	-	-
Cream	555	5,047	5,047	100.0	-	-
Wool	770	7,003	-	-	\$7,003	100.0
Total Livestock Products	\$229,280	\$2,085,150	\$2,078,147	99.7	\$7,003	.34

Source: Data from Interview Schedules

#### Poultry and Poultry Products Sales

Only 4.2 percent of the poultry and poultry production was disposed of through farm retail selling directly to consumers (Table 10). Broilers constituted over 85 percent of the total poultry and poultry products sales in Meigs County and 92.8 percent of the broilers were marketed through poultry dealers. Egg sales made up 10.0 percent of the total poultry and poultry products sales and 57.9 percent of the eggs were marketed through retailers and 42.1 percent sold directly to consumers.

Table 10  
Value of Poultry and Poultry Products Sold by Farmers and Percent  
Sold Through Various Market Outlets, Meigs County, Ohio, 1961

Poultry and Poultry Products	Sales In Sampling Area	Projected Sales Through Various Market Outlets								
		Projected Total Sales	Poultry Dealer (Processor)	Per- cent	Contract- Feed Co.	Per- cent	Retailer	Per- cent	Consumer	Per- cent
Broilers	\$24,365	\$221,584	\$205,696	92.8	\$15,888	7.2	-	-	-	-
Hens	1,123	10,213	10,213	100.0	-	-	-	-	-	-
Geese	10	91	-	-	-	-	-	-	\$ 91	100.0
Eggs	2,836	25,792	-	-	-	-	\$14,944	57.9	10,848	42.1
Total Poultry and Poultry Products	\$28,334	\$257,680	\$215,909	83.8	\$15,888	6.2	\$14,944	5.8	\$10,939	4.2

Source: Data from Interview Schedules

### Field Crop Sales

Farm retail sales direct to consumers accounted for only .04 percent of the total field crop sales. Over half or 51.7 percent of the sales were to elevators with wheat, soybeans and corn constituting all of these sales. Sales to other farmers accounted for 31.5 percent of the total sales with hay and corn being the main commodities.

### Fruit and Vegetable Sales

Fruit and vegetable sales in the sampling area in Meigs County were \$120,408 (Table 12). The projection of this for the entire county was \$1,099,453. Vegetable crops made up 86.4 percent of the total sales of fruit and vegetables and 95.7 percent of the vegetables were marketed through Packers Associations and Commission Houses.

Farm retail sales direct to the consumer accounted for 14.0 percent of the total sales of fruit and vegetables. Only .57 percent of the vegetables were marketed by farm retail selling, but all of the fruit in the sample was marketed in this manner.

### Sales of Miscellaneous Agricultural Commodities

Table 13 indicates that none of the miscellaneous agricultural commodities were marketed by farm retail selling. The sale of ponies and riding horses constituted about two-thirds of the miscellaneous sales. Timber represented 34.8 percent of the sales and the market outlet was neighborhood sawmills.

### Comparison of Farm Retail Selling in Franklin and Meigs Counties

Table 14 indicates that 29.9 percent of the farmers in Franklin County and 23.2 percent of the farmers in Meigs County were engaged in some farm retail selling. A total of 1.3 percent of the area sales in Franklin

Table 11  
Value of Farm Production of Field Crops Sold by Farmers, and Percent Sold  
Through Various Market Outlets, Meigs County, Ohio, 1961

Field Crops	Sales In Sampling Area	Projected Total Sales	Projected Total Sales Through Various Marketing Outlets							
			Elevator	Per- cent	Other Farmers	Per- cent	Ware- house	Per- cent	Con- sumer	Per- cent
Wheat	\$2,502	\$22,754	\$22,754	100.0	-	-	-	-	-	-
Hay	1,839	16,724	-	-	\$16,724	100.0	-	-	-	-
Corn	1,571	14,287	8,242	57.7	6,045	42.3	-	-	-	-
Tobacco	1,515	13,778	-	-	-	-	\$13,778	100.0	-	-
Soybeans	1,292	11,750	11,374	96.8	376	3.2	-	-	-	-
Oats	293	2,665	-	-	2,665	100.0	-	-	-	-
Peanuts	4	36	-	-	-	-	-	-	\$36	100.0
Total Field Crops	\$9,016	\$81,994	\$42,370	51.7	\$25,810	31.5	\$13,778	16.80	\$36	.04

Source: Data from Interview Schedules



Table 12  
Value of Vegetables and Fruit Sold by Farmers, and Percent Sold  
Through Various Market Outlets, Meigs County, Ohio, 1961

Commodity	Sales In Sampling Area	Projected Total Sales	Projected Sales Through Various Market Outlets										Retailer Per- cent	Consumer Per- cent	Per- cent
			Packers Assn.	Per- cent	Commission House	Per- cent	Whole- saler	Per- cent	Trucker	Per- cent	Cannery	Per- cent			
Vegetables															
Tomatoes	\$ 77,794	\$ 707,485	\$378,151	53.5	\$312,496	44.2	-	-	\$6,438	.91	\$10,400	1.5	-	-	-
Cabbage	19,542	177,722	73,221	41.2	97,658	55.0	\$6,842	3.9	-	-	-	-	-	-	-
Sweet Corn	4,465	40,606	16,860	41.5	12,080	29.8	-	-	-	-	-	-	\$11,605	28.6	\$ 61 .15
Sweet Potatoes	666	6,057	-	-	6,057	100.0	-	-	-	-	-	-	-	-	-
Peppers 1/	979	8,904	2,965	33.3	5,939	66.7	-	-	-	-	-	-	-	-	-
Green Beans	443	4,029	4,029	100.0	-	-	-	-	-	-	-	-	-	-	-
Cucumbers	98	891	891	100.0	-	-	-	-	-	-	-	-	-	-	-
Mixed Vegetables	54	4,911	-	-	-	-	-	-	-	-	-	-	-	-	4,911 100.0
Potatoes	48	437	-	-	-	-	-	-	-	-	-	-	-	-	437 100.0
Total Vegetables	\$104,089	\$ 951,042	\$476,117	50.1	\$434,230	45.7	\$6,842	.72	\$6,438	.68	\$10,400	1.09	\$11,605	1.2	\$ 5,409 .57
Fruit															
Peaches	\$ 16,319	\$ 148,411	-	-	-	-	-	-	-	-	-	-	-	-	\$148,411 100.0
Total Fruit	\$ 16,319	\$ 148,411	-	-	-	-	-	-	-	-	-	-	-	-	\$148,411 100.0
Total Vegetables and Fruit	\$120,408	\$1,099,453	\$476,117	43.3	\$434,230	39.5	\$6,842	.62	\$6,438	.59	\$10,400	.95	\$11,605	1.1	\$153,820 14.0

1/ Often called mangoes in the Ohio area.

Source: Data from Interview Schedules

Table 13  
Value of Miscellaneous Agricultural Products Sold by Farmers  
Through Various Market Outlets, Meigs County, Ohio, 1961

Commodity	Sales In Sampling Area	Projected Total Sales	Projected Total Sales Through Various Market Outlets			
			Saw- mill	Per- cent	Other <sup>1/</sup> Markets	Per- cent
Ponies	\$ 979	\$ 8,903	-	-	\$ 8,903	100.0
Riding Horses	381	3,465	-	-	3,465	100.0
Timber	762	6,930	\$6,930	100.0	-	-
Peacocks	71	646	-	-	646	100.0
Total	\$2,193	\$19,944	\$6,930	34.8	\$13,014	65.2

<sup>1/</sup> Other Markets in this instance refers to the sale of ponies, riding horses and peacocks to non-farmers for use.

Source: Data from Interview Schedules

County, and 4.1 percent of the area sales in Meigs County were marketed by farm retail selling (Table 15).

Most of the farm retail selling in both Franklin and Meigs Counties concerned sales of eggs, slaughter cattle, vegetables and fruits directly to consumers.

Farm retail selling of slaughter cattle accounted for .80 percent of the total cattle sales in Franklin County and .68 percent of the total cattle sales in Meigs County.

Farm retail selling was an important market for poultry and poultry products in Franklin County as 37.7 percent of the total sales of poultry and poultry products were marketed in this manner. However, in Meigs County this method of marketing accounted for only 4.2 percent of the total sales of poultry and poultry products. Most of the farm retail sales were egg sales directly to consumers as 45.3 percent of the total egg sales in Franklin County and 42.1 percent of the total egg sales in Meigs County were marketed in this manner.

Table 14  
Number and Percent of Farmers in the Sampling Area Producing  
and Selling Agricultural Commodities that are Marketing  
Some of Their Production by Farm Retail Selling,  
Franklin and Meigs Counties, Ohio, 1961

County	Number of Farmers		Percent of Farmers
	Producing and Selling Agricultural Commodities	Marketing Some Production by Farm Retail Selling	Marketing Some Production by Farm Retail Selling
Franklin	144	43	29.9
Meigs	99	23	23.2

Table 15  
Total Value of All Agricultural Commodities Sold by Farmers  
and the Sales and Percent of Total Sales of All  
Commodities Marketed by Farm Retail Selling,  
Franklin and Meigs Counties, Ohio, 1961

County	Total Sales of All Agricultural Commodities		Sales of Agricultural Commodities Marketed by Farm Retail Selling and Percent of Total Sales		
	Sampling Area Sales	Projected Total Sales	Sampling Area Sales	Percent of Total	Projected Total Sales
Franklin	\$971,475	\$8,484,214	\$12,596	1.3	\$110,005
Meigs	452,537	4,119,948	18,488	4.1	168,315

All of the sample vegetable and fruit sales in Franklin County were farm retail sales directly to consumers, while in Meigs County this method of marketing accounted for 14.0 percent of the total.

#### Effectiveness of the Sampling Procedure Used in the Analysis

The objectives of this study were to determine the efficiency of the sampling procedure in estimating the extent of and the value of farm retail selling, and to determine the effectiveness of the sampling procedure in estimating the total value of all agricultural commodities produced and sold, and the market outlets for these commodities.

This sampling procedure was not effective as a means of attaining the objectives of the study. The weakness of the random sampling procedure in this study cannot be overcome through adjustment of the survey results but can only be corrected by an increase in the rate of sampling and/or a different method of sampling. The total projected sales compared with the estimated cash receipts from farm marketings in 1961 are shown in Table 16-19. The estimated receipts were taken from the "1961 Ohio Farm Income" Bulletin prepared by the Ohio Agricultural Experiment Station in cooperation with the Statistical Reporting Service, U. S. Department of Agriculture.

The sampling procedure did a more satisfactory job of estimating cattle and calves sales, and sheep and wool sales than of other livestock and livestock products in Franklin County. The projected total livestock and livestock products sales were only 62.8 percent of the cash receipts as estimated by the Crop Reporting Service.

The projected sales for field corn and wheat in Franklin County were more accurate than those for other crops in estimating the cash receipts

for these crops in 1961 (Table 17). The projected sales for soybeans, oats and hay, greenhouse and nursery crops, and vegetables and fruit were far below the sales for these products. The projected sales for all crops was only 44.6 percent of the estimated cash receipts for all crops.

None of the projected sales for livestock and livestock products in Meigs County were reasonably accurate in estimating the cash receipts for these products in 1961 (Table 18). Projected dairy products sales were 159.1 percent of the estimated cash receipts, while hogs, cattle and calves, poultry and eggs, and sheep and wool projected sales were all far below the estimated cash receipts for these products.

The projected sales for soybeans, field corn, wheat, and oats and hay in Meigs County as shown in Table 19 were not reasonably accurate in estimating the cash receipts for these products in 1961. However, the projected sales for fruit and vegetables and those for all crops were reasonably close to the official estimates of receipts for those crops in 1961.

#### Summary and Conclusions

In comparing these two counties we find that in Franklin County the average farmer has about 500 persons as potential retail customers while the Meigs County farmer has less than 16 persons. The average income per person in Franklin County is \$2208 compared with \$1532 in Meigs. Value of sales per farm was \$9988 in Franklin and \$3545 in Meigs. Despite these facts, Meigs County farmers in this sample survey sold a larger proportion of their total product at retail than did their counterparts in Franklin County.

Table 16  
Comparison of Total Projected Sales for Livestock and Livestock Products Based  
on the Sampling Area Sales, with Estimated Cash Receipts from Farm Marketings,  
Franklin County, Ohio, 1961

Commodity	Sampling Area Sales 1961	Total Projected Sales, 1961	Estimated Cash Receipts From Farm Products 1961 <u>1/</u>	Total Projected Sales Percent of Estimated Cash Receipts 1961
Dairy Products	\$153,385	\$1,339,562	\$2,724,000	49.2
Hogs	164,287	1,434,773	1,949,000	73.6
Cattle and Calves	184,106	1,607,859	1,798,000	89.4
Poultry and Eggs	26,741	233,538	900,000	25.9
Sheep and Wool	19,581	171,007	160,000	106.9
Total Livestock and Livestock Products	\$549,964 <u>2/</u>	\$4,756,018	\$7,575,000 <u>3/</u>	62.8

1/ Figure taken from the "1961 Ohio Farm Income" Bulletin prepared by the Ohio Agricultural Experiment Station

2/ Not a total of the figures in the column. The total includes the figures in the column and other miscellaneous livestock and livestock products.

3/ Not a total of the figures in the column. This is the total taken from the "1961 Ohio Farm Income" Bulletin

Table 17  
Comparison of Total Projected Sales for Field Crops, Greenhouse and Nursery, Vegetables  
and Fruit Based on the Sampling Area Sales, with Estimated Cash Receipts  
From Farm Marketings, Franklin County, Ohio, 1961

Crops	Sampling Area Sales 1961	Total Projected Sales, 1961	Estimated Cash Receipts From Farm Products 1961 <u>1/</u>	Total Projected Sales Percent of Estimated Cash Receipts 1961
Soybeans	\$165,189	\$1,442,651	\$2,002,000	72.1
Field Corn	144,729	1,263,967	1,311,000	96.4
Wheat	92,161	804,873	919,000	87.6
Oats and Hay	10,620	92,748	183,000	50.7
Greenhouse and Nursery	4,359	38,069	1,126,000	3.4
Vegetables and Fruit	862	7,527	1,144,000	.66
Total for All Crops	\$421,511 <u>2/</u>	\$3,681,196	\$6,748,000 <u>3/</u>	54.6

1/ Figures taken from the "1961 Ohio Farm Income" Bulletin prepared by the Ohio Agricultural Experiment Station

2/ Not a total of the figures in the column. The figure includes the column figures and other miscellaneous crops.

3/ Not a total of the figures in the column. The figure was taken from the "1961 Ohio Farm Income" Bulletin

Table 18  
Comparison of Total Projected Sales for Livestock and Livestock Products  
Based on the Sampling Area Sales, with Estimated Cash Receipts from  
Farm Marketings, Meigs County, Ohio, 1961

Commodity	Sampling Area Sales 1961	Total Projected Sales, 1961	Estimated Cash Receipts From Farm Products 1961 <u>1/</u>	Total Projected Sales Percent of Estimated Cash Receipts 1961
Dairy Products	\$228,510	\$2,078,147	\$1,306,000	159.1
Hogs	5,546	50,437	238,000	21.2
Cattle and Calves	56,795	518,150	877,000	59.1
Poultry and Eggs	28,334	257,680	1,104,000	23.3
Sheep and Wool	1,555	14,143	30,000	47.1
Total Livestock and Livestock Products	\$322,171 <u>2/</u>	\$2,931,571	\$3,591,000 <u>3/</u>	81.6

1/ Figures taken from the "1961 Ohio Farm Income" Bulletin prepared by the Ohio Agricultural Experiment Station

2/ Not a total of the figures in the column. The total includes the figures in the column and other miscellaneous livestock and livestock products.

3/ Not a total of the figures in the column. This is the total taken from the "1961 Ohio Farm Income" Bulletin



Table 19  
Comparison of Total Projected Sales for Field Crops, and Vegetables and Fruit  
Based on the Sampling Area Sales, with Estimated Cash Receipts  
From Farm Marketings, Meigs County, Ohio, 1961

Commodity	Sampling Area Sales 1961	Total Projected Sales, 1961	Estimated Cash Receipts From Farm Products 1961 <u>1/</u>	Total Projected Sales Percent of Estimated Cash Receipts 1961
Soybeans	\$ 1,292	\$ 11,750	\$ 7,000	167.8
Field Corn	1,571	14,287	127,000	11.2
Wheat	2,502	22,754	36,000	63.2
Oats and Hay	2,132	19,389	55,000	35.3
Vegetables and Fruit	<u>120,408</u>	<u>1,099,453</u>	<u>948,000</u>	<u>116.0</u>
Total for All Crops	\$130,186 <u>2/</u>	\$1,188,327	\$1,255,000 <u>3/</u>	94.7

1/ Figures taken from the "1961 Ohio Farm Income" Bulletin prepared by the Ohio Agricultural Experiment Station

2/ Not a total of the figures in the column. The figure includes the column figures and other miscellaneous crops.

3/ Not a total of the figures in the column. The figure was taken from the "1961 Ohio Farm Income" Bulletin

In Franklin County 29.9 percent of the farmers interviewed were doing some farm retail selling, while in Meigs County only 23.2 percent of the farmers were marketing some of their production in this manner. Farm retail selling accounted for 4.1 percent of the total sales of agricultural products in the sampling area in Meigs County and for 1.3 percent in Franklin County.

It appears that much of the direct selling by farmers in Meigs County was to other farmers. This is consistent with the less commercialized or more self-sufficient nature of farming in Meigs County as indicated by average value of farm sales per farm.

While the random sampling procedure came reasonably near to correctly estimating fruit and vegetable sales in Meigs County, the estimate based on the sample was much too low for Franklin County. These commodities are grown by only a few farmers, and it appears that this procedure with the sampling rate used cannot be expected to estimate the total sales within a county with a satisfactory degree of accuracy for crops where the distribution of production is not general throughout the county.

This study, as well as information from other sources, indicates a need for further study. No "roadside" markets or other organized farm sales units happened to fall in the selected sample areas in either of these counties. In Meigs County this apparently was to be expected since the County Extension Agent knew of no roadside markets. In Franklin County, however, a roadside marketing study made the same year located some 95 farm retail sales operations that were identified and visited by an enumerator who drove each road in Franklin County. These markets varied from permanent year-round sales stores to seasonal sales tables or stands but none happened to be included in the sample area farmer interviews. Sales by those interviewed in this roadside market survey amounted

to approximately \$427,000. If this quantity were added to the sales of farmers without stands as estimated from the area sample survey it would amount to \$537,000 in farm retail sales in Franklin County or about 6.3 percent of total farm marketings.

Neither the area sample survey nor the method of driving down all roads to find all roadside selling will give a correct estimate of the volume of direct farm sales to consumers. It appears that in estimating farm retail sales a sample larger than the 11 percent taken or some sort of stratification or both are necessary. Much of the farm retail sale is of poultry, eggs, fruits and vegetables and other products whose pattern of production is quite variable geographically and the small sample may completely miss all or part of a crop area as it did in Franklin County.

The survey based on travelling down each road has deficiencies in addition to its high cost. None of the 1.3 percent of marketings by Franklin County growers in the area sample survey was by farmers having visible roadside selling stands. Any survey based on road selection of retail farmer markets would have underestimated retail sales by the amount represented by these "invisible" sellers, in this case by \$110,000 of the \$537,000 total in Franklin County and all of the farm retail sales in Meigs.

Any survey aimed at estimating the magnitude of farmer retail sales must apparently include two phases. One, the survey of farmer retail sellers with stands or markets and, two, a survey of the general farm operators who do not have roadside stands or any visible evidence of being retailers. In the two counties studied it appears that this unseen or unadvertised portion of the direct sale by farmers is large and in Meigs County larger in total than that through the so-called farmer roadside markets.